

IN THE CLAIMS:

1    1. (currently amended) An electrostatic discharge (ESD) protective structure that  
2    protects an integrated semiconductor circuit connected between a first potential bus with  
3    a first supply potential (VCC) and a second potential bus with a second supply potential  
4    (VSS), said electrostatic discharge protective structure comprising:

5                 a laterally formed electrostatic discharge diode having a first region doped with  
6    a first conduction type and a second region, spaced apart from said first region;

7                 said second region being doped with a doped second conduction type, wherein  
8    said electrostatic discharge protective structure is located between the first and second  
9    potential busses and drains off an overvoltage pulse to one [fo] of the first and second  
10   potential busses, wherein said laterally formed electrostatic discharge diode includes a  
11   gate electrode located between said first region and said second region, said first  
12   region being separated from said second region by a distance that corresponds  
13   [corresponding] to [the width (W) or the length] a dimension of the gate electrode.

1    2. (original) The electrostatic discharge protective structure of claim 1, wherein  
2    said protective structure includes a semiconductor body having a surface in which said  
3    first region and said second region are embedded, wherein said first region is connected  
4    via a first electrode to the first potential bus, and said second region is connected via a  
5    second electrode to the second potential bus.

1    3. (original) The electrostatic discharge protective structure of claim 2, wherein

2 said semiconductor body includes charge carriers of the second conduction type, and  
3 said gate electrode and said second electrode are connected to said second potential bus.

1 4. (original) The electrostatic discharge protective structure of claim 2, wherein  
2 said semiconductor body includes charge carriers of the first conduction type, and at  
3 least one well of the second conduction type is embedded in said semiconductor body,  
4 and said first and second regions are embedded in said well.

1 5. (currently amended) The electrostatic discharge protective structure of claim 4,  
2 wherein said second [regions] region laterally [enclouse] encloses said first [regions]  
3 region.

1 6. (original) The electrostatic discharge protective structure of claim 4, wherein  
2 the integrated semiconductor circuit is configured and arranged as an MOS or CMOS  
3 circuit.

1 7. (original) The electrostatic discharge protective structure of claim 2,  
2 comprising a gate dielectric that spaces said semiconductor body at a distance from the  
3 gate electrode.

1 8. (original) The electrostatic discharge protective structure of claim 7, wherein  
2 said gate dielectric contains silicon dioxide and said gate electrode contains polysilicon.

1 9. - 12. (canceled).

1       13. (currently amended) An integrated circuit with electrostatic discharge  
2           protection, said integrated circuit comprising:  
3           a circuit to be protected; and  
4           an electrostatic discharge device that is disposed electrically parallel to said  
5           circuit to be protected between first and second voltage busses, wherein said  
6           electrostatic discharge device includes a laterally shaped electrostatic discharge diode  
7           having:

8               (i) a first region doped with a first conduction type material within a  
9               substrate;  
10              (ii) a second region doped with a second conduction type material within  
11               said substrate; and  
12              (iii) a gate electrode having a width W and located between said first and  
13               second regions such that said first and second regions are separated by the width  
14               W.

1       14. (original) The integrated circuit of claim 13, comprising a gate oxide disposed  
2           on said substrate between said first and second conduction regions and underlying said  
3           gate electrode.

1       15. (original) The integrated circuit of claim 14, comprising a first electrode  
2           disposed on said substrate overlaying said first region, and a second electrode disposed  
3           on said substrate overlaying said second region, wherein said first electrode is  
4           connected to the first voltage bus and said second electrode is connected to said second

5 bus.

1 16. (new) An integrated circuit with electrostatic discharge protection, said  
2 integrated circuit comprising:  
3 a circuit to be protected; and  
4 an electrostatic discharge device that is disposed electrically parallel to said  
5 circuit to be protected between first and second voltage busses, wherein said  
6 electrostatic discharge device includes a laterally shaped electrostatic discharge diode  
7 having:  
8 (i) a first doped region doped with a first conduction type material within  
9 a substrate;  
10 (ii) a first electrode in communication with said first doped region, said  
11 first electrode being coupled to the first voltage bus;  
12 (iii) a second doped region doped with a second conduction type  
13 material within said substrate;  
14 (iv) a second electrode in communication with said second doped region,  
15 said second electrode being coupled to the second voltage bus;  
16 (v) an insulator located between said first and second electrodes, and  
17 having an insulator dimension that corresponds to the distance between said first  
18 and second regions; and  
19 (vi) a gate electrode in communication with and contiguous with said  
20 insulator along a gate electrode dimension thereof.

1 17. (new) The integrated circuit of claim 16, wherein said insulator includes an  
2 oxide.

1 18. (new) The integrated circuit of claim 18, wherein said oxide is silicon dioxide.